

FIRST CLASS
PERMIT NO.
242
HICKSVILLE, L.I.
NEW YORK

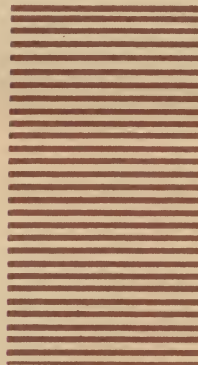
BUSINESS REPLY CARD

No Postage Necessary if Mailed in the United States

POSTAGE WILL BE PAID BY-

AMPEREX ELECTRONIC CORPORATION

HICKSVILLE, L. I., NEW YORK 11802



ATTN: Advertising and Sales Promotion Dept.

code 724

So that we may be in a better position to be of assistance to you, please fill in this card.

- My application is _____

- Send me additional technical information on _____

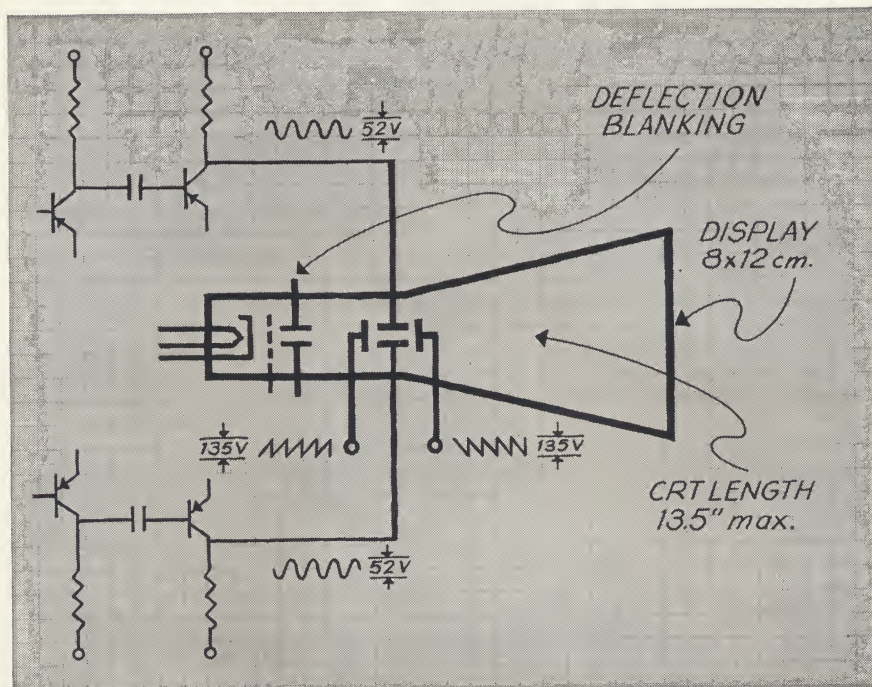
- I require price and delivery information on _____
- Please have your representative call concerning _____

Name _____ Title _____

Company _____

Address _____
Street City State Zip Code

Your most advanced circuits



deserve the most advanced CRT, the Amprex D 13-27

Check this unique combination of features:

- Short Length, 13.5 in.
- Vertical Sensitivity, 13 V/cm
- Horizontal Sensitivity, 27 V/cm
 - Scan, 8 x 12 cm
 - Spot Size, 0.012 in.
 - Face, 5" flat
- Utilizes Deflection Blanking Electrodes

(this allows blanking circuitry to be referenced to ground)

For complete specifications and applications assistance on the D 13-27 and other new Amprex Cathode Ray Tubes, write: Amprex Electronic Corporation, Tube Division, Hicksville, L. I., New York 11802.

Amprex®



Amperex[®] ELECTRONIC CORPORATION

HICKSVILLE, L. I., N. Y., 11802

TYPE
D13-27
CATHODE RAY
TUBE

ADVANCE DATA*

The D13-27 is a 5 inch flat-face cathode ray tube intended for use in precision instruments. It features electrostatic focusing and deflection and incorporates a helical distributed P.D.A. system.

MECHANICAL

Dimensions	see outline drawing
Mounting Position	any
Screen	
Color	green
Persistence	medium short
Useful Scan ($\frac{E_{c8}}{E_{c5}} = 2$)	horizontal (X) full scan vertical (Y) 8 cm

The useful scan may be shifted vertically 4 mm max. with respect to the center of the face plate.

ELECTRICAL

Cathode	indirectly heated, series or parallel supply
Heater Voltage	6.3 volts
Heater Current	300 ma
Focusing and Deflection	electrostatic
Spot Size (at screen current of 10 μ a) ¹	0.0118 inches
P.D.A. Helix Resistance	50 megohms min.
Interelectrode Capacitances	
Grid No. 1 to All Electrodes	6 pf
Cathode to All Electrodes	5 pf
Deflection Plate X1 to All Electrodes (except X2)	3.0 pf
Deflection Plate X2 to All Electrodes (except X1)	3.0 pf
Deflection Plate Y1 to All Electrodes (except Y2)	3.5 pf
Deflection Plate Y2 to All Electrodes (except Y1)	3.5 pf
Deflection Plate X1 to X2	2.5 pf
Deflection Plate Y1 to Y2	1.5 pf

MAXIMUM RATINGS, ABSOLUTE VALUES

Post Accelerator Voltage (G-8) ²	3.3 kv max. 1.8 kv min.
Geometry Control Electrode Voltage (G-7)	1.7 kv max.
Deflection Plate Shield Voltage (G-6)	1.7 kv max.
Astigmatism Control Electrode Voltage (G-5)	1.7 kv max.
Focusing Electrode Voltage (G-4)	1.2 kv max.
Beam Blanking Electrode Voltage (G-3)	1.7 kv max.

* No guarantee of supply of this product is implied by this specification.
Characteristics are subject to change without notice.

¹ Measured by the shrinking raster method

$$\frac{E_{c8}}{E_{c5}} = \frac{3000}{1500}$$

² This voltage should be equal to the mean Y-plate potential.

Amperex

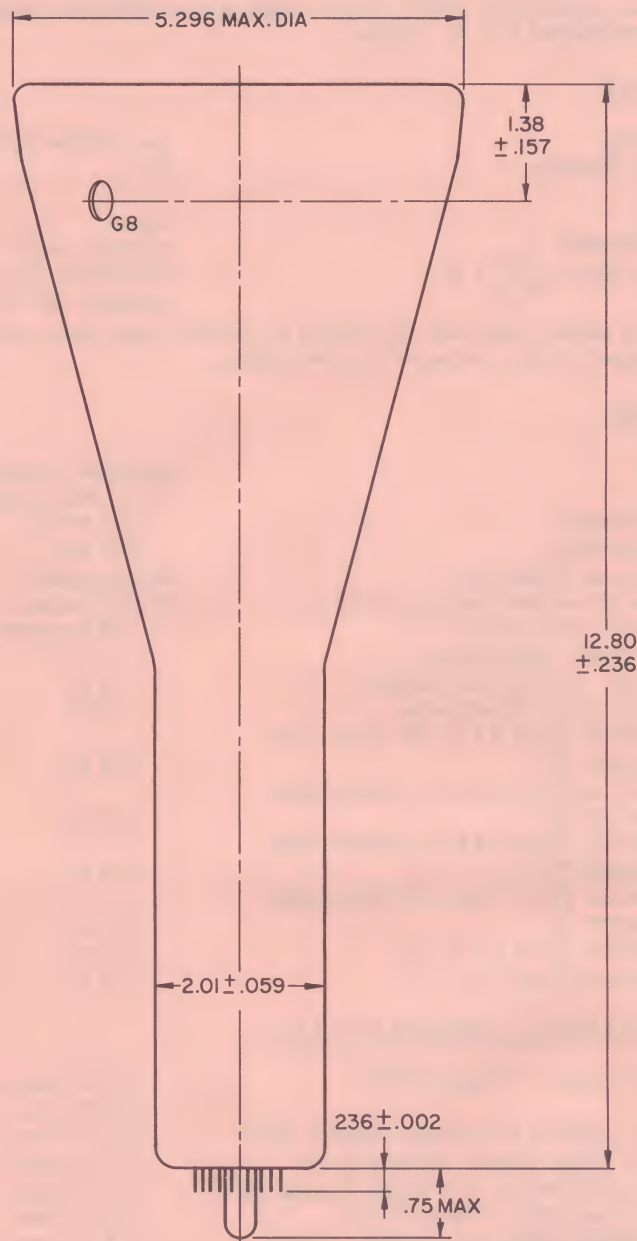
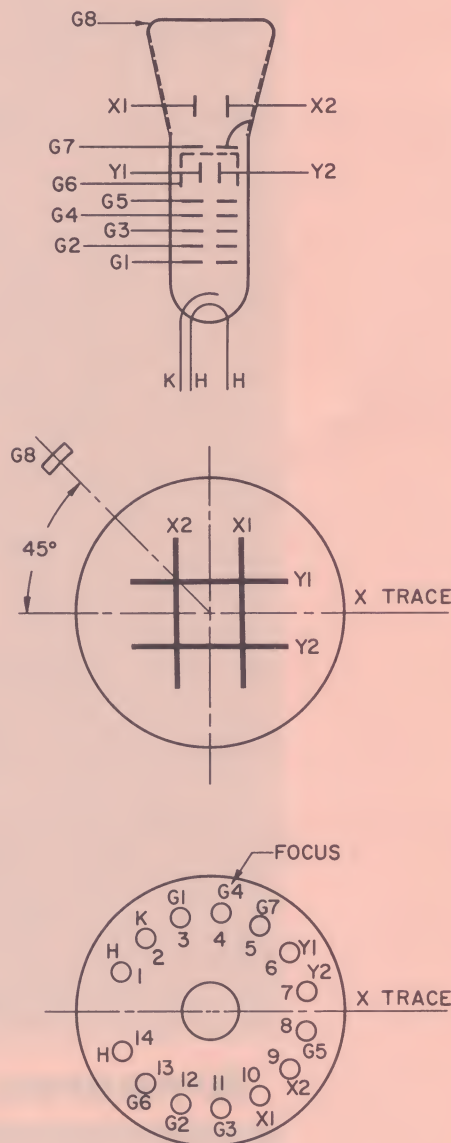
March 1964

TYPICAL OPERATING CONDITIONS

Post Accelerator Voltage (G-8)²
 Geometry Control Electrode Voltage (G-7)
 Deflection Plate Shield Voltage (G-6)²
 Astigmatism Control Electrode Voltage (G-5)
 Focusing Electrode Voltage (G-4)
 Beam Blanking Electrode Voltage (G-3)³
 First Accelerator Electrode Voltage (G-2)
 Negative Grid No. 1 Voltage (for visual cut-off)
 Deflection Factor
 Horizontal (X)
 Vertical (Y)
 Pattern Distortion
 Linearity of Deflection

3.0 kv
 1500±75 volts
 1.5 kv
 1500±75 volts
 200-380 volts
 60 volts max.
 1.5 kv
 38-135 volts

 27 V/cm
 13 V/cm
 See Note 4
 See Note 5



Notes

If use is made of the full deflection capabilities of the tube, the deflection plates will intercept part of the electron beam near the edge of the tube. Therefore a low impedance deflection plate drive is desirable.

³ With respect to E_{c2} for beam blanking at a beam current of $10 \mu a$.

⁴ The sensitivity of a deflection of less than 75% of the useful scan will not differ from the sensitivity at a deflection of 25% of the useful scan by more than 2%.

⁵ A focused raster, whose size is adjusted so that the widest points just touch a rectangle 100 x 60 mm, will have no point within a concentric rectangle 98 x 58 mm.